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1. General Description
  2. Relay and Fuse
  3. Cockpit Display System
  4. Cockpit Display
  5. Front Speaker
  6. Rear Speaker
  7. Power Amplifier
  8. Antenna
  9. Switches and Harness
  10. Microphone
  11. Telematics System
  12. Data Communication Module
  13. Camera
  14. Accessory Power Supply Socket
  15. External Connection Terminal
  16. Diagnostics with Phenomenon
  17. Dealership Mode

## ENTERTAINMENT & MONITORING > General Description

### CAUTION

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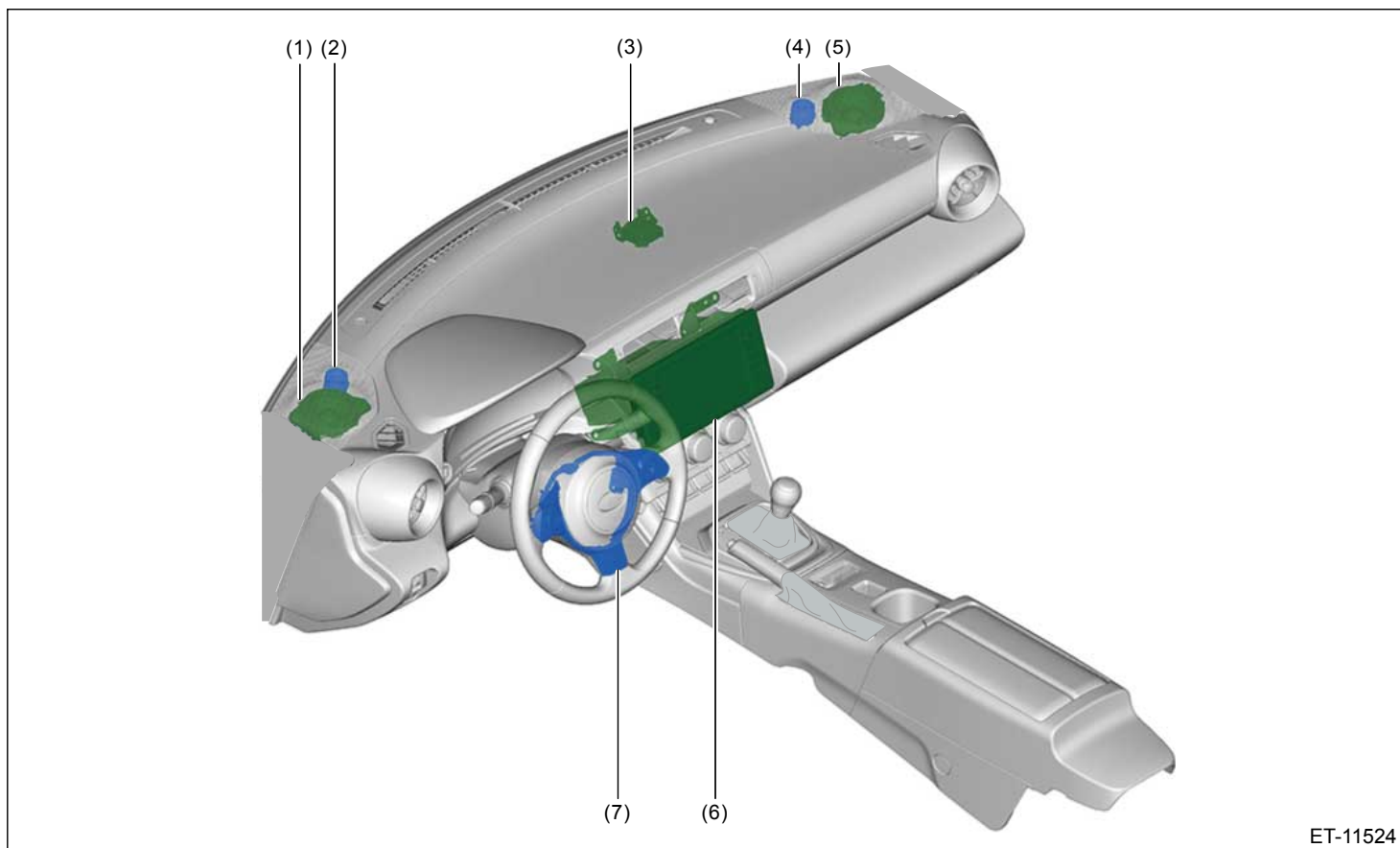
- When performing service operation, refer to "Repair Contents" in "General Description".  [Ref. to REPAIR CONTENTS>Repair Contents.](#)
- When performing work on the sensors or modules, be careful of the following.
  - Before disconnecting connectors, be sure to disconnect the ground terminal from the battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)
  - Do not apply any impact. If the parts are accidentally dropped, replace with a new part.
  - Do not expose to high-temperature and humidity.
- When replacing the parts provided with memory functions, record the memory contents before disconnecting the ground terminal from the battery sensor.
- Refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM" section.  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- If any immobilizer related part has been replaced, make sure to register the immobilizer.

## ENTERTAINMENT & MONITORING > General Description

### LOCATION

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#### 1. COCKPIT DISPLAY SYSTEM



(1) Speaker ASSY instrument panel LH

(2) Speaker ASSY tweeter LH

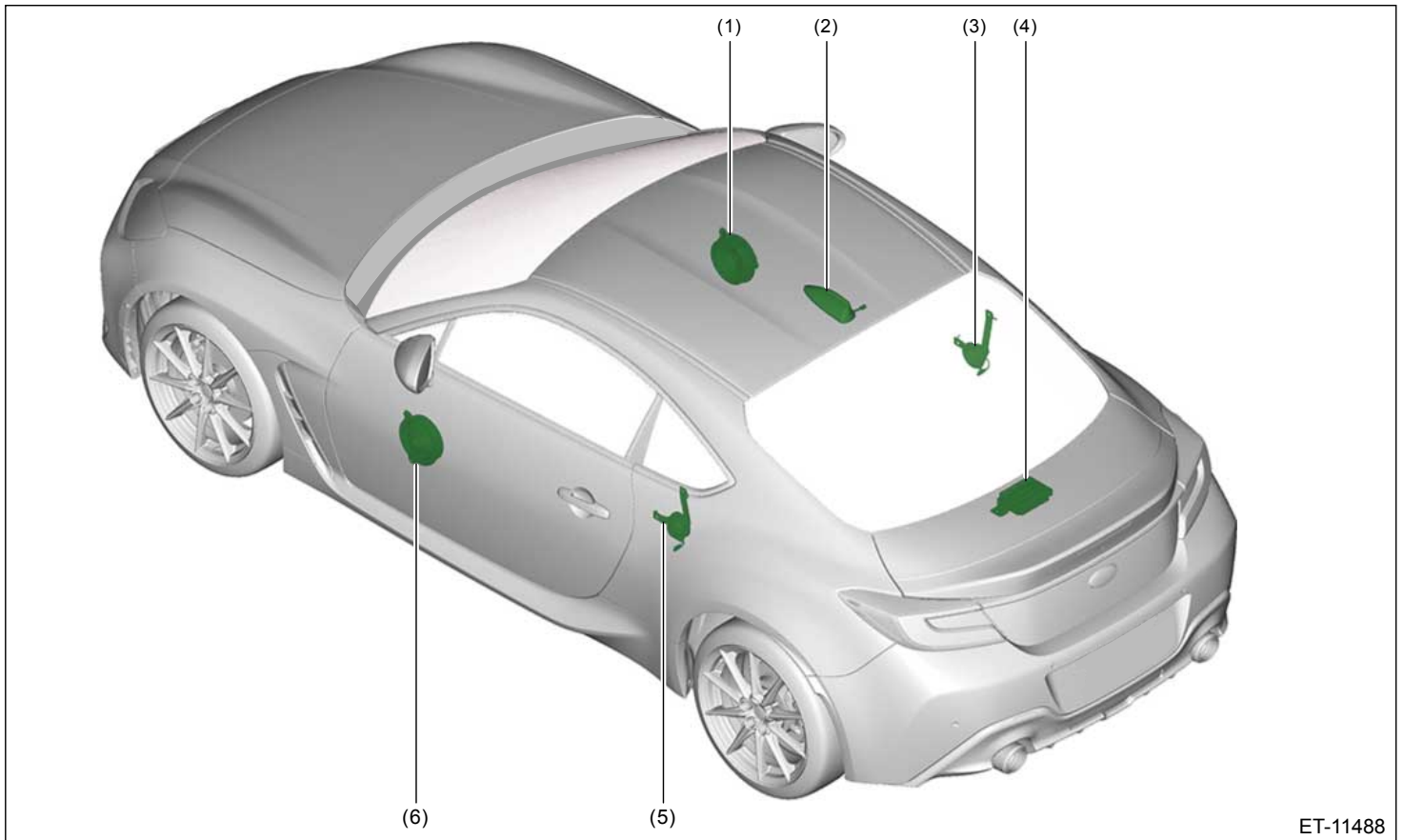
(3) GPS antenna ASSY

(4) Speaker ASSY tweeter RH

(5) Speaker ASSY instrument panel RH

(6) Center information display ASSY

(7) Satellite switch ASSY



ET-11488

(1) Speaker ASSY front RH

(3) Speaker ASSY rear RH

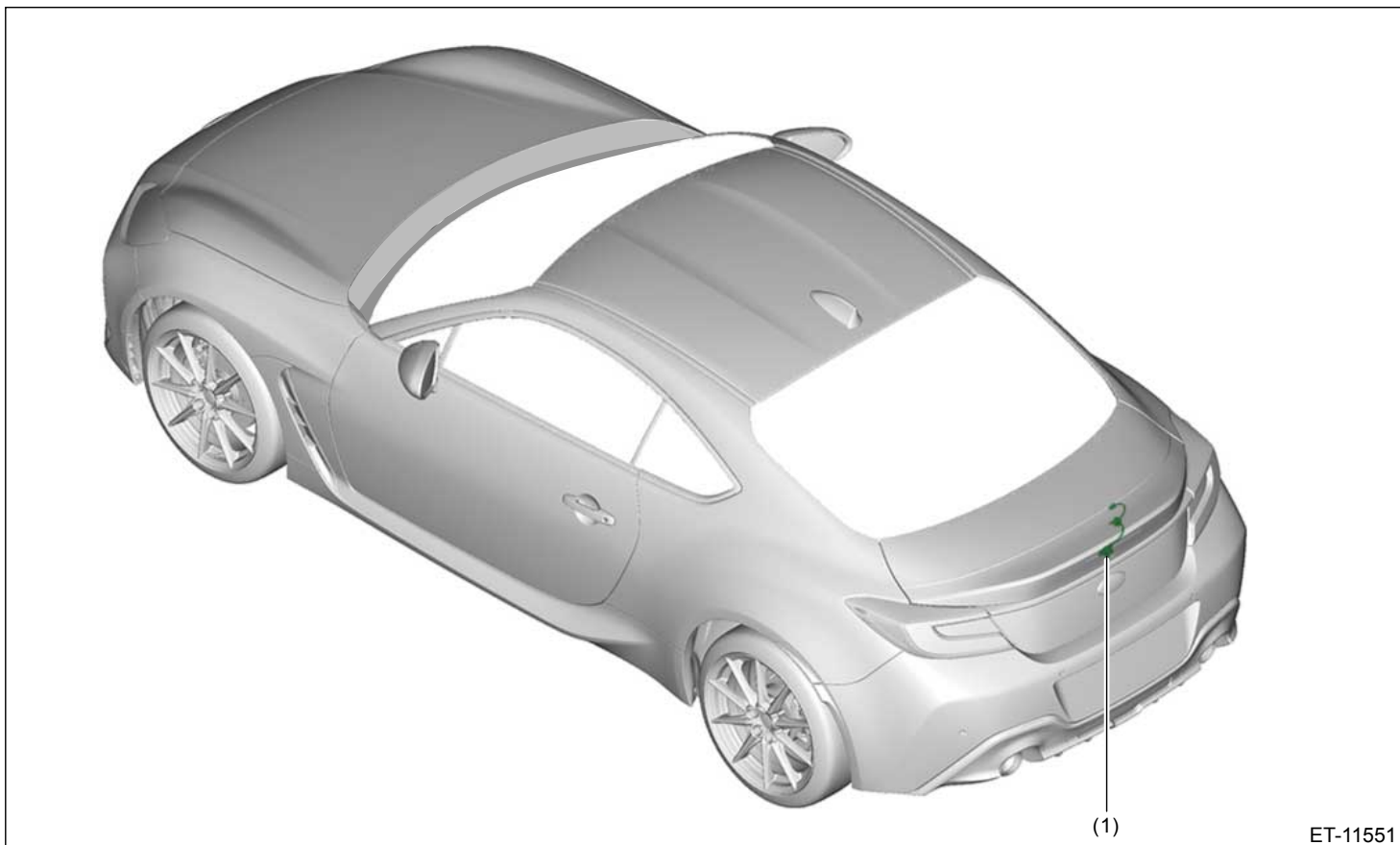
(5) Speaker ASSY rear LH

(2) Antenna ASSY roof

(4) Power amplifier ASSY

(6) Speaker ASSY front LH


## 2. CAMERA



ET-11551

(1) Rearview camera ASSY

### 3. TELEMATICS SYSTEM

For locations, refer to "LOCATION" of "TELEMATICS (DIAGNOSTICS)" section.  [Ref. to TELEMATICS SYSTEM \(DIAGNOSTICS\)>Electrical Component Location>LOCATION.](#)

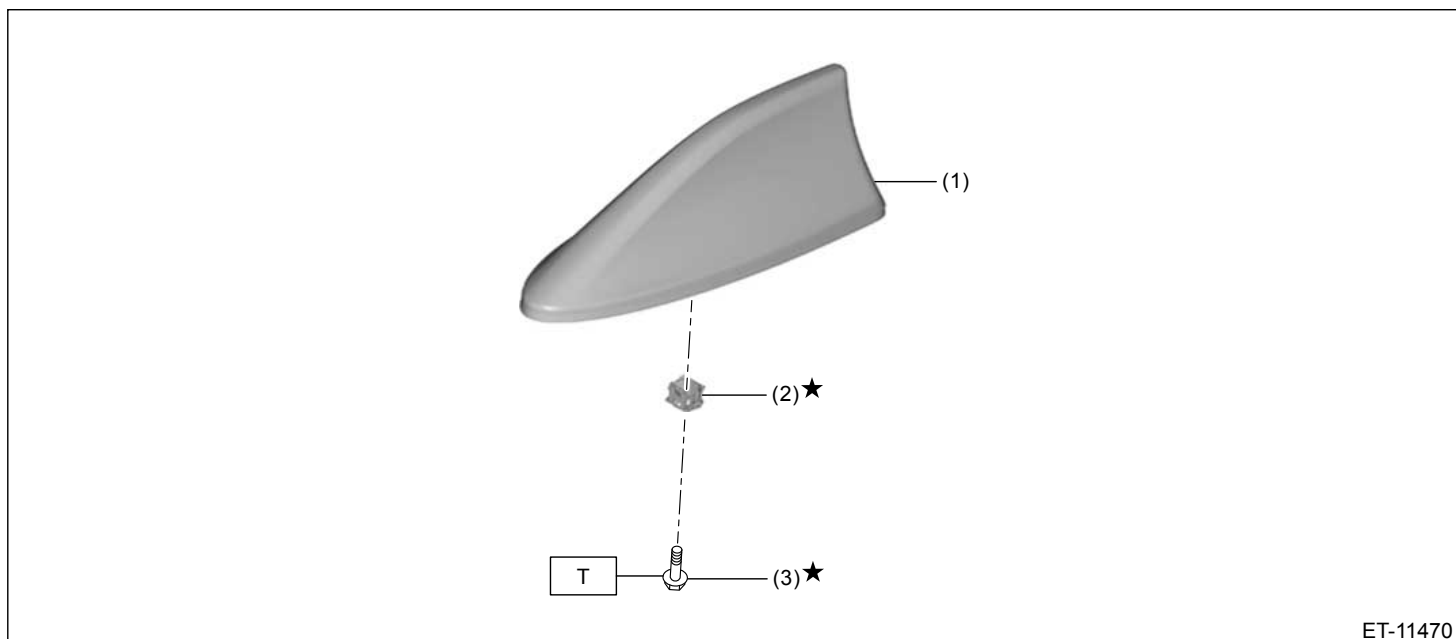
ENTERTAINMENT & MONITORING > General Description

## COMPONENT

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### 1. CENTER INFORMATION DISPLAY





(1) Antenna ASSY roof

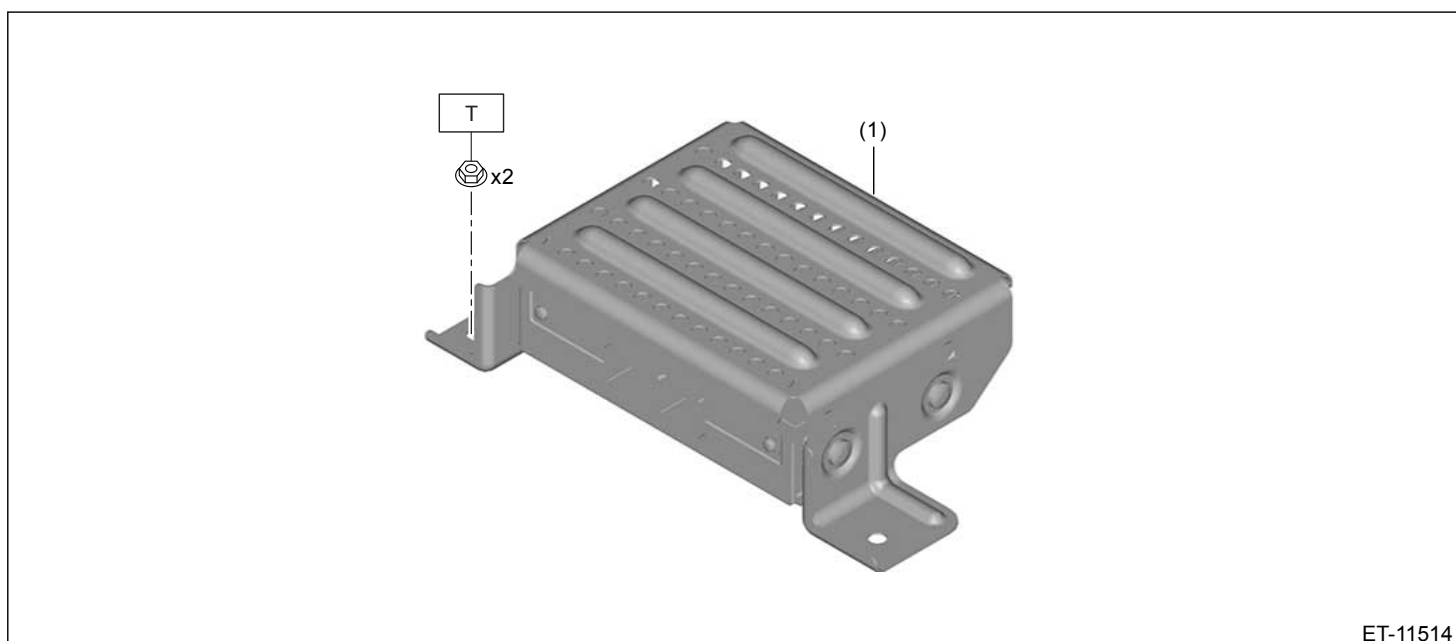
(3) Bolt

**Tightening torque: N·m (kgf-m, ft-lb)**

(2) Clip

**T: 4.5 ±1 (0.5±0.1, 3.3±0.7)**

### 3. POWER AMPLIFIER



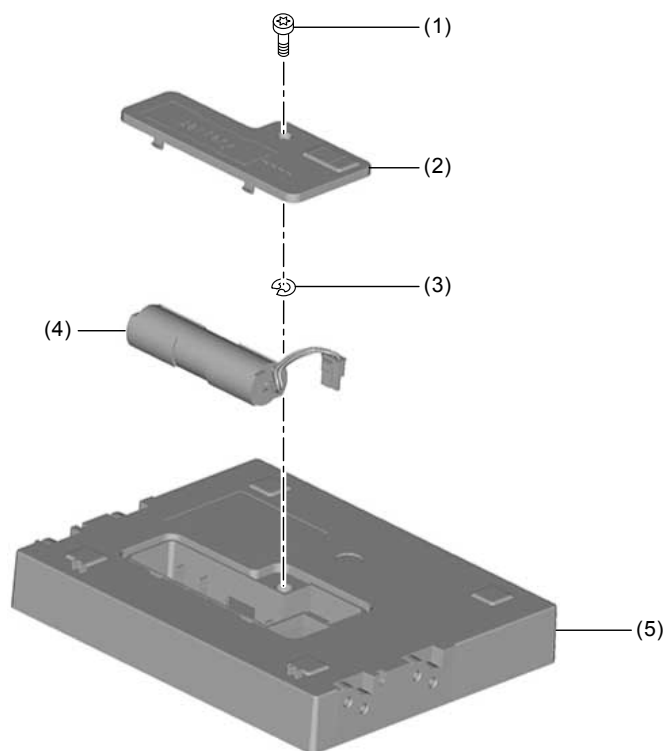
(1) Power amplifier ASSY

**Tightening torque: N·m (kgf-m, ft-lb)**

**T: 7.5 (0.8, 5.5)**

### 4. DATA COMMUNICATION MODULE






ET-11899

- (1) Cap screw (2) Battery cover (3) Circlip (4) Backup battery (5) Data communication module

## ENTERTAINMENT & MONITORING > General Description

### PREPARATION TOOL

#### 1. SUBARU SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>STSSM4</p>	—	SUBARU SELECT MONITOR 4	<p>Used for setting of each function and troubleshooting for electrical system.</p> <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>For detailed operation procedures, refer to “Help” of application.</li> <li>Used together with interface for Subaru Select Monitor (such as DST-i and DST-010).</li> </ul>

#### 2. OTHER


	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.

TORX® T10	Used for removing and installing the backup battery.
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## ENTERTAINMENT & MONITORING > Relay and Fuse

### LOCATION

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For the location, refer to "FUSE AND RELAY" in the wiring diagram.  [Ref. to WIRING SYSTEM>Fuse And Relay>LOCATION.](#)

**Note:**

For details of relay and fuse, refer to "DC POWER SUPPLY CIRCUIT".  [Ref. to WIRING SYSTEM>Power Supply Circuit>WIRING DIAGRAM.](#)

## ENTERTAINMENT & MONITORING > Relay and Fuse

### INSPECTION

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#### 1. CHECK FUSE

1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.


**Note:**

If the fuse is blown again, check the system wiring harness.

## ENTERTAINMENT & MONITORING > Cockpit Display System

### WIRING DIAGRAM

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For the wiring diagram, refer to "Audio and Navigation System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Audio and Navigation System>WIRING DIAGRAM.](#)

## ENTERTAINMENT & MONITORING > Cockpit Display System


### INSPECTION

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#### 1. BASIC INSPECTION

For the basic inspection, refer to "Basic Diagnostic Procedure" of "COCKPIT CONTROL (DIAGNOSTICS)".  [Ref. to COCKPIT CONTROL \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

#### 2. SYSTEM BLOCK DIAGRAM

For system block diagram, refer to "System Block Diagram" in "COCKPIT CONTROL (DIAGNOSTICS)".  [Ref. to COCKPIT CONTROL \(DIAGNOSTICS\)>General Description>SYSTEM BLOCK DIAGRAM.](#)

#### 3. MODULE I/O SIGNAL





For the electrical specification, refer to "Control Module I/O Signal" of "COCKPIT CONTROL (DIAGNOSTICS)".  [Ref. to COCKPIT CONTROL \(DIAGNOSTICS\)>Control Module I/O Signal.](#)

## ENTERTAINMENT & MONITORING > Cockpit Display System

### NOTE

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For operation procedures of components of the cockpit display system, refer to the following sections.




- Cockpit display:  [Ref. to ENTERTAINMENT & MONITORING>Cockpit Display.](#)
- Front speaker:  [Ref. to ENTERTAINMENT & MONITORING>Front Speaker.](#)
- Rear speaker:  [Ref. to ENTERTAINMENT & MONITORING>Rear Speaker.](#)
- Power amplifier:  [Ref. to ENTERTAINMENT & MONITORING>Power Amplifier.](#)
- Antenna:  [Ref. to ENTERTAINMENT & MONITORING>Antenna.](#)
- Steering switch:  [Ref. to ENTERTAINMENT & MONITORING>Switches and Harness.](#)
- External connection terminal:  [Ref. to ENTERTAINMENT & MONITORING>External Connection Terminal.](#)
- Microphone:  [Ref. to ENTERTAINMENT & MONITORING>Microphone.](#)
- Camera:  [Ref. to ENTERTAINMENT & MONITORING>Camera.](#)

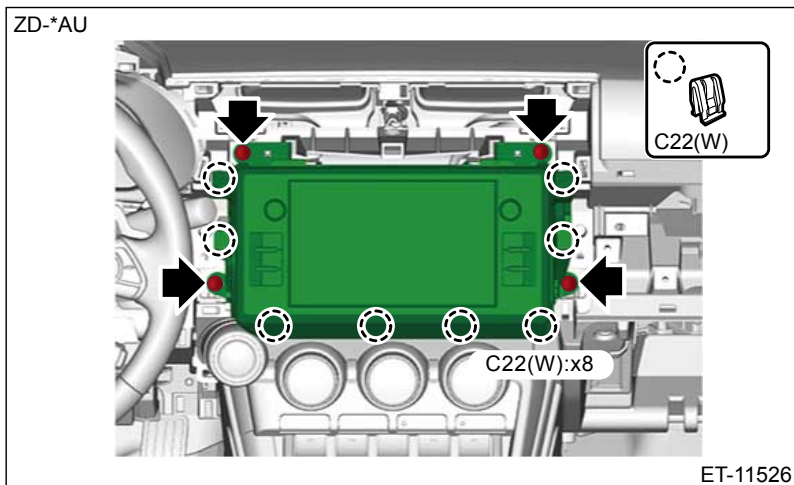
## ENTERTAINMENT & MONITORING > Cockpit Display



### REMOVAL

#### Caution:

Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)
2. Remove the cover LWR driver INN.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL > INSIDE.](#)
3. Remove the cover assembly instrument panel side RH and the panel center UPR assembly.  [Ref. to AIR CONDITIONER>Air Vent Grille>REMOVAL > CENTER GRILLE.](#)
4. Remove the center information display assembly.
  - (1) Remove the bolt and release the clip.




- (2) Disconnect the connectors, and then remove the center information display assembly.
5. Remove the data communication module. (Model with telematics)  [Ref. to ENTERTAINMENT & MONITORING>Data Communication Module>REMOVAL > DATA COMMUNICATION MODULE.](#)
6. Remove the cockpit control module.  [Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>DISASSEMBLY.](#)





## ENTERTAINMENT & MONITORING > Cockpit Display

### INSTALLATION

#### Caution:

Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

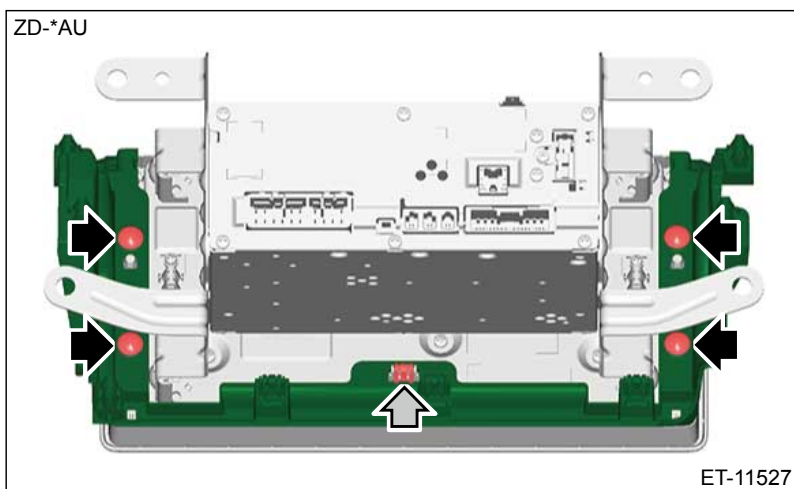
1. Install the cockpit control module.  [Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>ASSEMBLY.](#)

2. Install the data communication module. (Model with telematics)  [Ref. to ENTERTAINMENT & MONITORING>Data Communication Module>INSTALLATION > DATA COMMUNICATION MODULE.](#)
3. Connect each connector, and install the center information display assembly.  
**Tightening torque:**  
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
4. Install the panel center UPR assembly and cover assembly instrument panel side RH.  [Ref. to AIR CONDITIONER>Control Panel>INSTALLATION.](#)
5. Install the cover LWR driver INN.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION > INSIDE.](#)
6. Connect the ground terminal to battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)

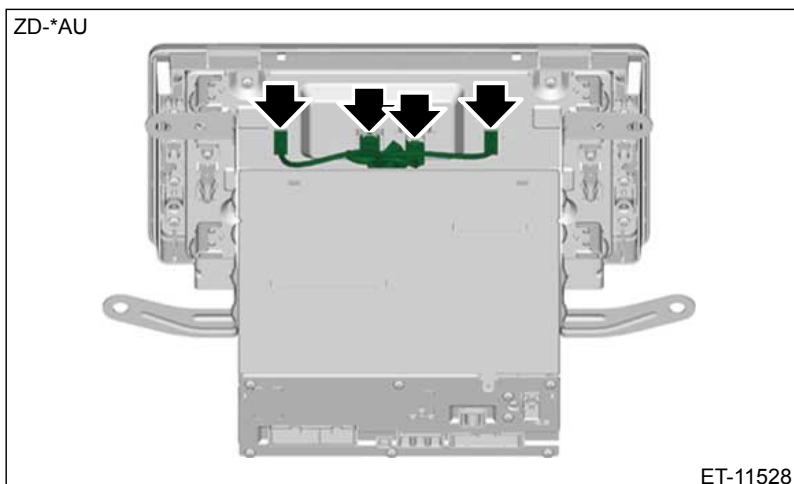
## ENTERTAINMENT & MONITORING > Cockpit Display

### DISASSEMBLY

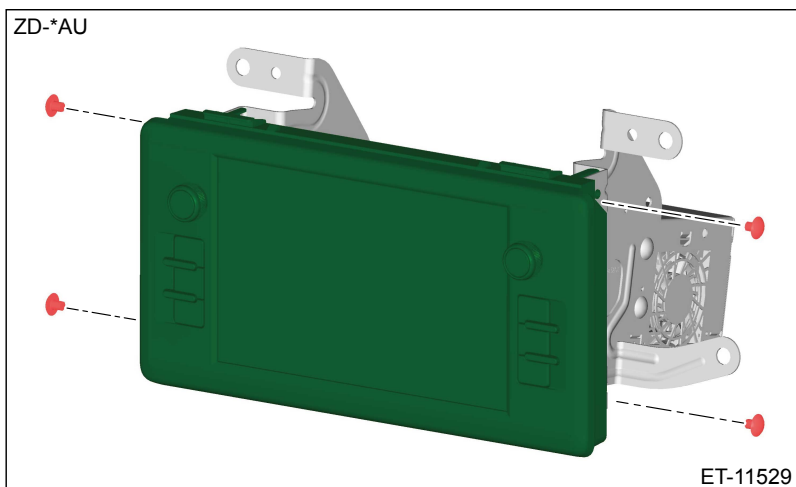
1. Remove the panel center LWR assembly.
  - (1) Remove the screws.
  - (2) Release the clips, and then remove the panel center LWR assembly.



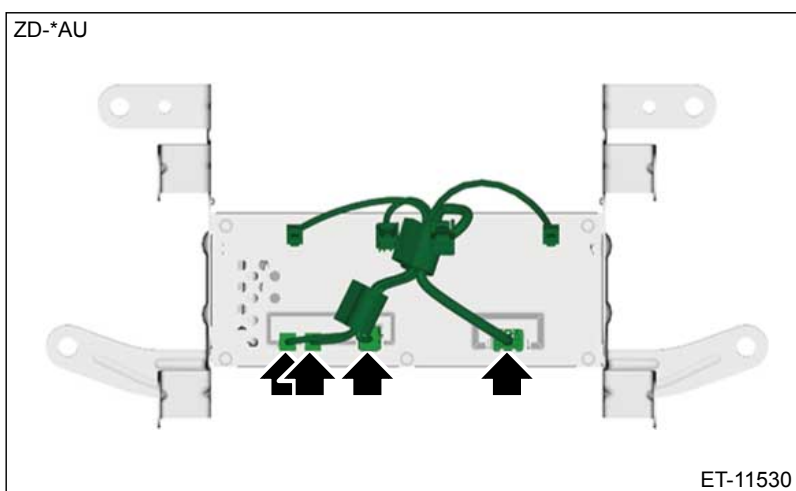
2. Remove the center information display.
  - (1) Disconnect connectors.



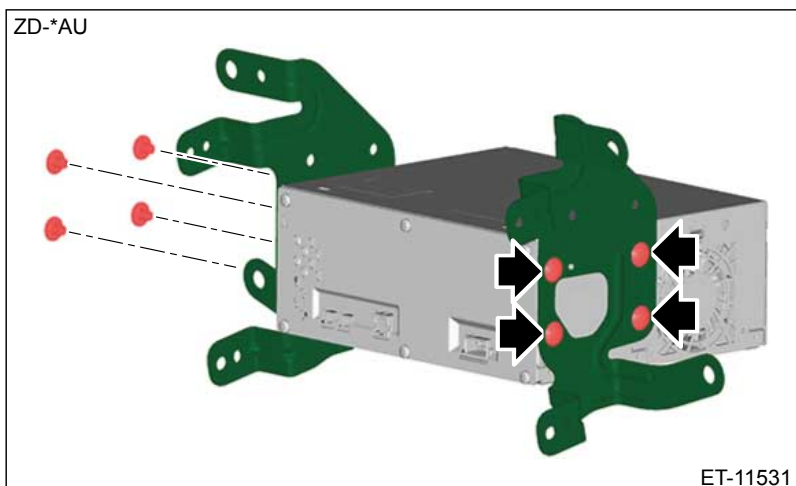
- (2) Remove the screws and remove the center information display.



- 3.** Disconnect the connectors, and remove the cord assembly CCM.



- 4.** Remove the screws and remove the unit bracket from the cockpit control module.



## ENTERTAINMENT & MONITORING > Cockpit Display

### ASSEMBLY


- 1.** Install the unit bracket to the cockpit control module.
- 2.** Connect each connector, and install the cord assembly CCM.

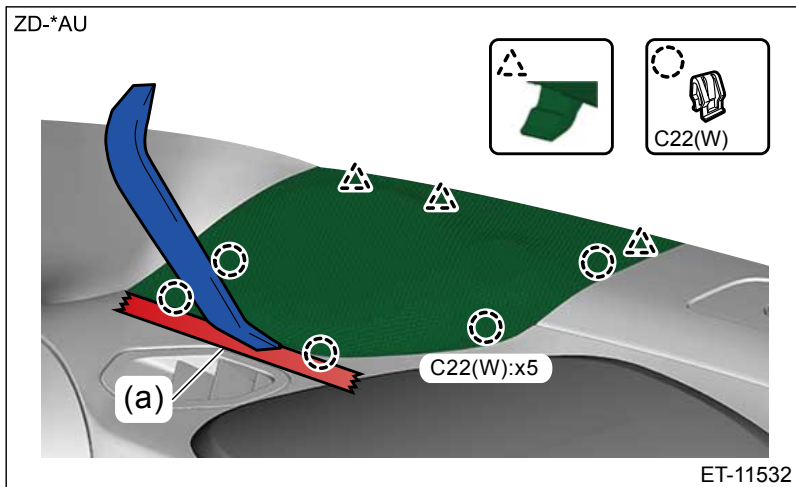
- 3.** Connect each connector, and install the center information display.
- 4.** Install the panel center LWR assembly.



## REMOVAL

### 1. TWEETER

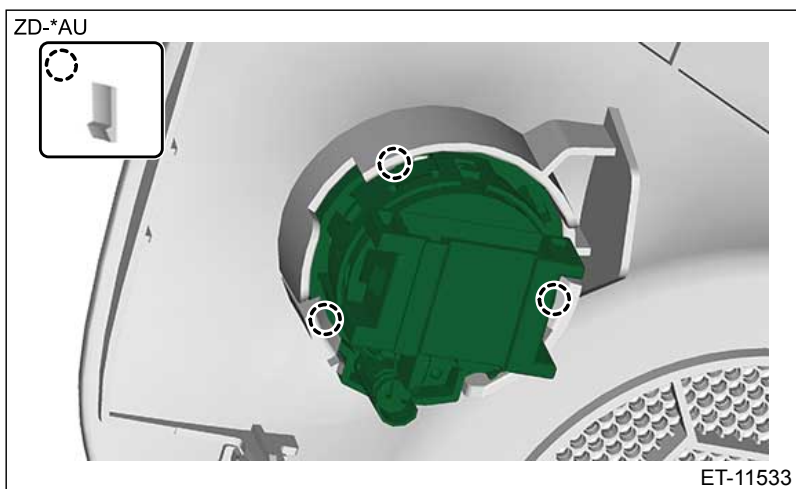
1. Disconnect the ground terminal from battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)
2. Remove the grille speaker side.
  - (1) Attach the protective tape (a).
  - (2) Release the clips and remove the hooks using a plastic remover or similar tool.




- (3) Disconnect the connector of the speaker assembly tweeter, and remove the grille speaker side.
3. Release the claws, and remove the speaker assembly tweeter from the grille speaker side.

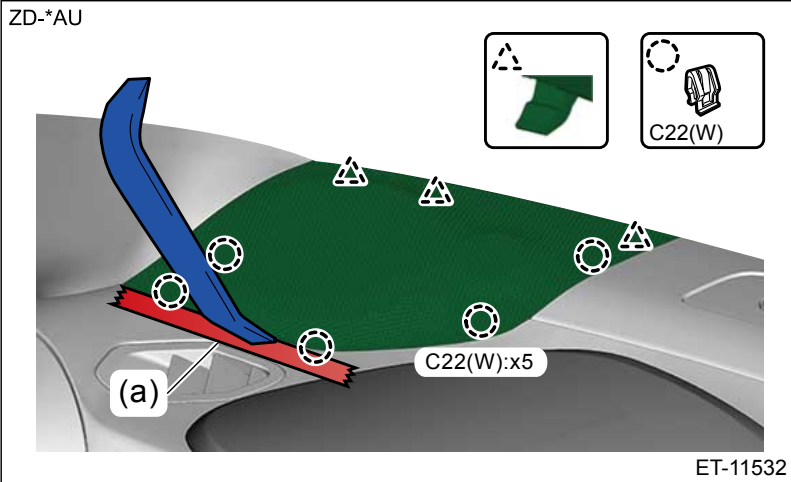
#### Caution:

**Do not touch the cone.**



### 2. INSTRUMENT PANEL

1. Disconnect the ground terminal from battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)
2. Remove the grille speaker side.
  - (1) Attach the protective tape (a).
  - (2) Release the clips and remove the hooks using a plastic remover or similar tool.



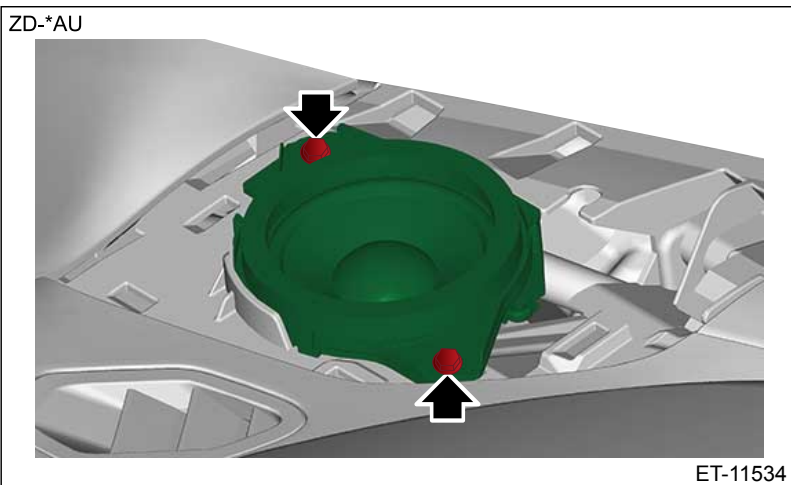
(3) Disconnect the connector of the speaker assembly tweeter, and remove the grille speaker side.

### 3. Remove the speaker assembly instrument panel.

#### Caution:

**Do not touch the cone.**

(1) Remove the bolt.



(2) Disconnect the connector, and remove the speaker assembly instrument panel.

## 3. DOOR

#### Caution:

**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".** [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

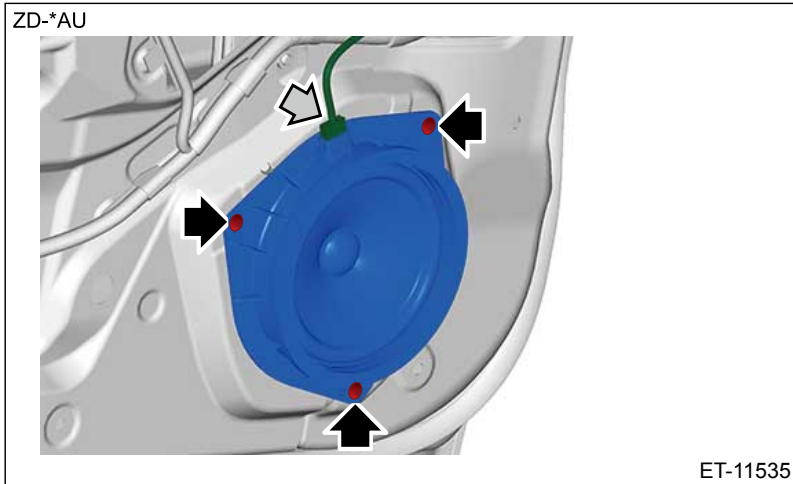
1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)
2. Remove the trim panel front door. [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL.](#)
3. Remove the speaker assembly front.

#### Caution:

**Do not touch the cone.**

(1) Disconnect the connector.

(2) Remove the screws and remove the speaker assembly front.



## ENTERTAINMENT & MONITORING > Front Speaker


### INSTALLATION

#### 1. TWEETER

1. Install the speaker assembly tweeter to the grille speaker side.

**Caution:**

**Do not touch the cone.**

2. Connect the connector of the speaker assembly tweeter, and install the grille speaker side.
3. Connect the ground terminal to battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)

#### 2. INSTRUMENT PANEL


1. Connect the connector, and install the speaker assembly instrument panel.

**Caution:**

**Do not touch the cone.**


**Tightening torque:**

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

2. Connect the connector of the speaker assembly tweeter, and install the grille speaker side.
3. Connect the ground terminal to battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)

#### 3. DOOR

**Caution:**

**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".**  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install the speaker assembly front, and connect the connector.

**Caution:**

**Do not touch the cone.**

**Note:**

**If the threaded portion of grommet is faulty, replace the grommet with a new part.**

2. Install the trim panel front door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION.](#)
3. Connect the ground terminal to battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)

## ENTERTAINMENT & MONITORING > Front Speaker

### INSPECTION

#### 1. TWEETER

1. Check that no foreign matter has entered the speaker and that the speaker cone is not torn, deformed, or otherwise damaged.
2. Replace the speaker assembly tweeter if it is found defective.

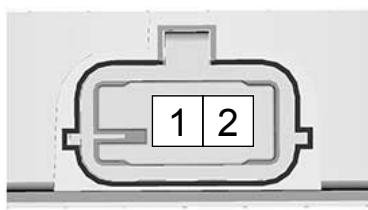
#### 2. INSTRUMENT PANEL

1. Check that no foreign matter has entered the speaker and that the speaker cone is not torn, deformed, or otherwise damaged.
2. Replace the speaker assembly instrument panel if it is found defective.

#### 3. DOOR

1. Check that no foreign matter has entered the speaker and that the speaker cone is not torn, deformed, or otherwise damaged.
2. Measure the resistance between connector terminals.

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ET-11499

- Model without power amplifier

Terminal No.	Inspection conditions	Standard
1 — 2	Always	2.9 — 3.9 $\Omega$

- Model with power amplifier


Terminal No.	Inspection conditions	Standard
1 — 2	Always	2.6 — 3.2 $\Omega$







3. Replace the speaker assembly front if it is found defective.

## ENTERTAINMENT & MONITORING > Rear Speaker

### REMOVAL

#### Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

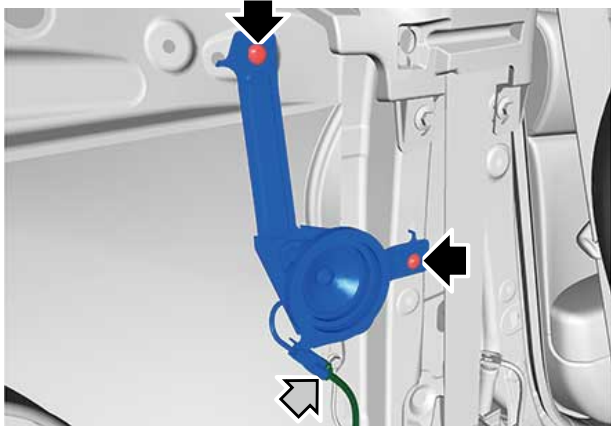
1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)
2. Tilt the front seat backrest assembly forward, and move the front seat all the way forward.
3. Remove the cushion assembly rear seat and the backrest assembly rear seat.  [Ref. to SEATS>Rear Seat>REMOVAL.](#)
4. Remove the cover side sill front Rr and the cover side sill front Ft.  [Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>REMOVAL.](#)
5. Remove the weather strip body side flange front.  [Ref. to EXTERIOR BODY PANELS>Weather Strip>REPLACEMENT.](#)
6. Remove the trunk trim panel side.  [Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>REMOVAL.](#)
7. Remove the trim panel assembly quarter.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>REMOVAL.](#)
8. Remove the speaker assembly rear.

#### Caution:

**Do not touch the cone.**

- (1) Disconnect the connector.
- (2) Remove the screws and remove the speaker assembly rear.

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ET-11536

## ENTERTAINMENT & MONITORING > Rear Speaker

### INSTALLATION

#### Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)







1. Install the speaker assembly rear, and connect the connector.

**Caution:**

**Do not touch the cone.**

**Note:**

**If the threaded portion of grommet is faulty, replace the grommet with a new part.**

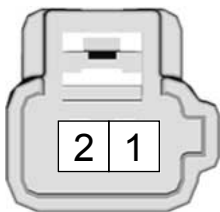
2. Install the trim panel assembly quarter.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>INSTALLATION.](#)
3. Install the trunk trim panel side.  [Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>INSTALLATION.](#)
4. Install the weather strip body side flange front.  [Ref. to EXTERIOR BODY PANELS>Weather Strip>REPLACEMENT.](#)
5. Install the cover side sill front Ft and the cover side sill front Rr.  [Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>INSTALLATION.](#)
6. Install the backrest assembly rear seat and the cushion assembly rear seat.  [Ref. to SEATS>Rear Seat>INSTALLATION.](#)
7. Connect the ground terminal to battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)

## ENTERTAINMENT & MONITORING > Rear Speaker

### INSPECTION

1. Check that no foreign matter has entered the speaker and that the speaker cone is not torn, deformed, or otherwise damaged.
2. Measure the resistance between connector terminals. (Model with power amplifier)

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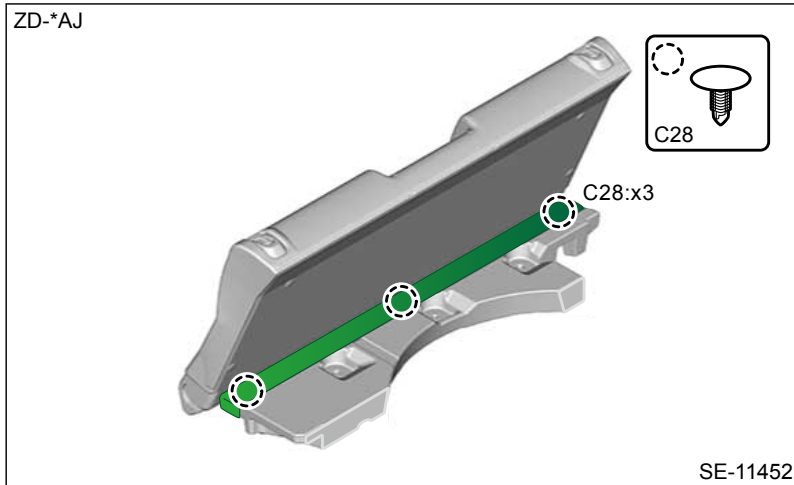
ET-11501

Terminal No.	Inspection conditions	Standard
1 — 2	Always	3.8 — 4.6 Ω

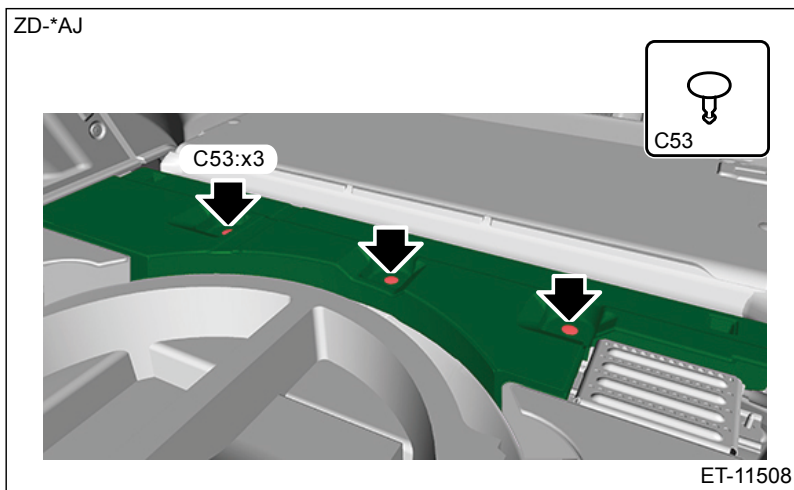
3. Replace the speaker assembly rear if it is found defective.

### REMOVAL

1. Disconnect the ground terminal from battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)
2. Remove the mat trunk.
3. Remove the spacer rear floor front.
  - (1) Remove the clips from the cover backrest rear seat.

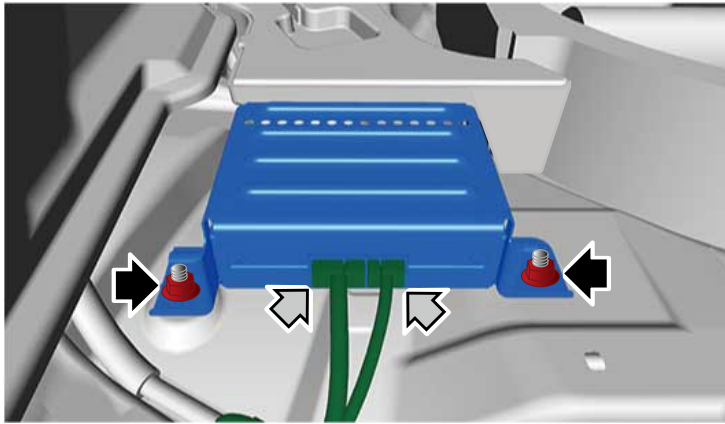


- (2) Tilt the backrest assembly rear seat forward.
  - (3) Release the clips, then detach the spacer rear floor front.



4. Remove the power amplifier assembly.
  - (1) Disconnect connectors.
  - (2) Remove the nut and remove the power amplifier assembly.

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## ENTERTAINMENT & MONITORING > Power Amplifier

### INSTALLATION

1. Install the power amplifier assembly, and then connect each connector.

#### **Tightening torque:**

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

2. Install the spacer rear floor front and cover backrest rear seat.
3. Install the mat trunk.
4. Connect the ground terminal to battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)






## REMOVAL



### 1. ROOF ANTENNA (XM/TELEMATICS)

**Caution:**

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

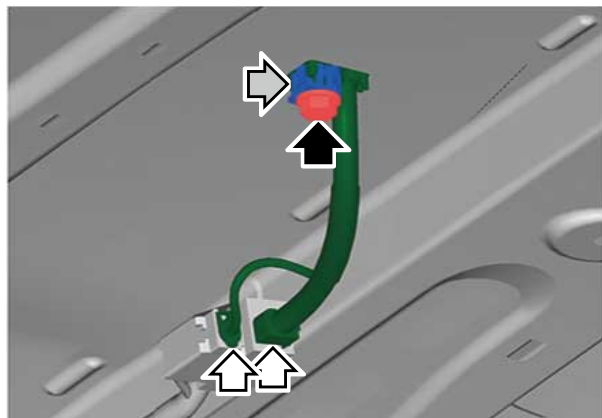
1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)
2. Lower the trim panel roof assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>REMOVAL.](#)

**Note:**

Procedures for the roof trim is performed inside the vehicle.

3. Remove the antenna assembly roof.
  - (1) Disconnect connectors.
  - (2) Remove the bolts and clips, and then remove the antenna assembly roof.


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### 2. GPS ANTENNA

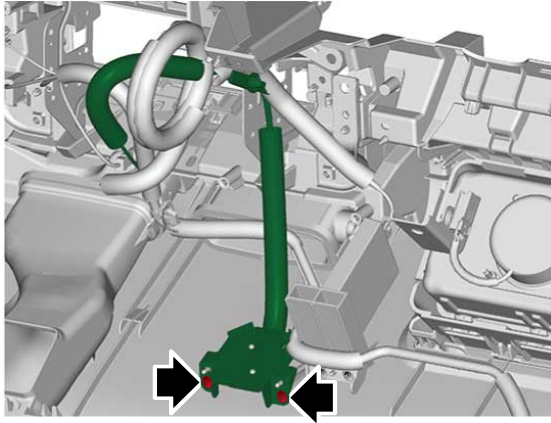
**Caution:**

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)
2. Remove the instrument panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>REMOVAL.](#)
3. Remove the duct ventilation RH.  [Ref. to AIR CONDITIONER>Air Vent Duct>REMOVAL > FRONT DUCT.](#)

4. Remove screws and remove the GPS antenna assembly.


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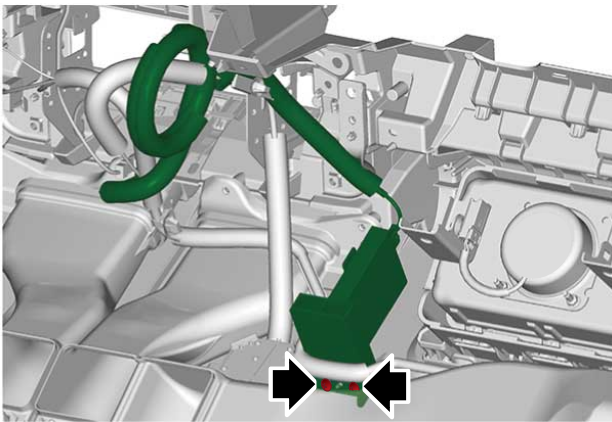
### 3. TELEMATICS SUB ANTENNA

**Caution:**

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)
2. Remove the instrument panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>REMOVAL.](#)
3. Remove the screws and then remove the telematics sub antenna assembly.

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### 4. FEEDER CORD

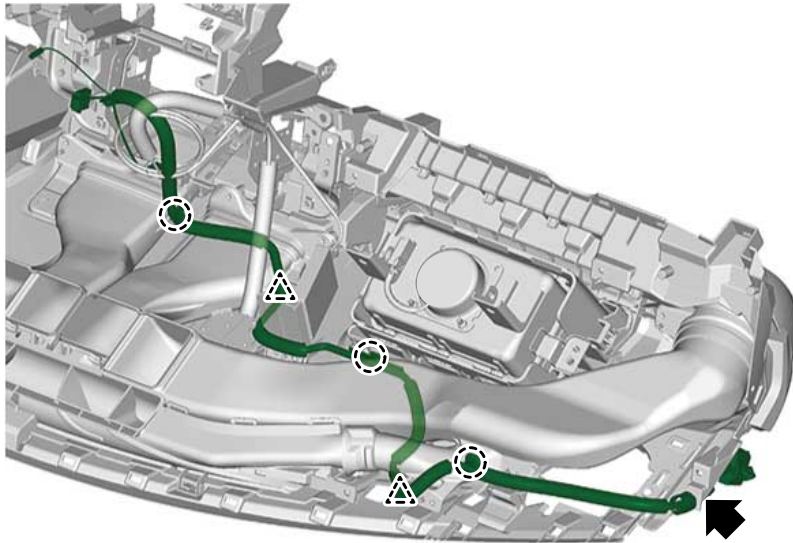
● INSTRUMENT PANEL

**Caution:**

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)
2. Remove the instrument panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>REMOVAL.](#)
3. Remove the feeder assembly cord.
  - (1) Remove the cord clips, and then remove the feeder assembly cord from the clamp of the panel COMPL instrument.
  - (2) Pull the feeder assembly cord out from between the panel COMPL instrument, duct side defroster RH, and duct ventilation RH.

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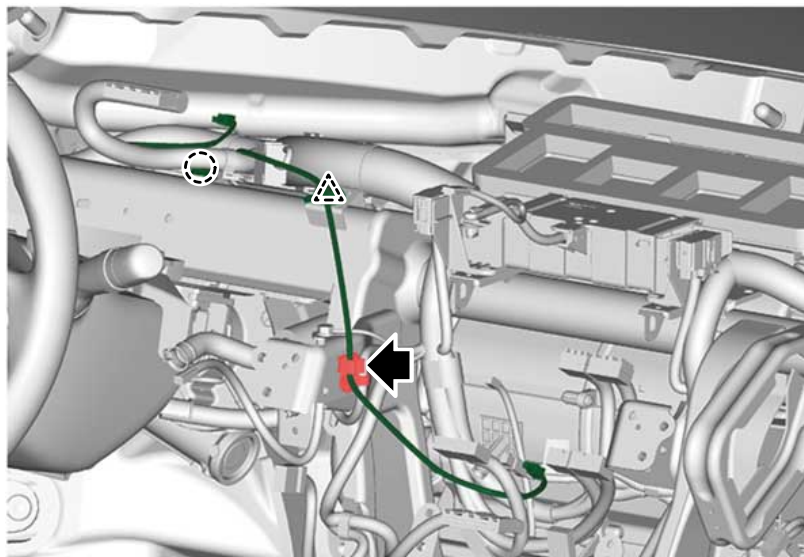
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## ● STEERING BEAM

### Caution:

**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".**  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)
2. Remove the instrument panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>REMOVAL.](#)
3. Remove the cord assembly meter.
  - (1) Remove the cord assembly meter from the clamp of the beam steering COMPL.
  - (2) Remove the cord clip, and remove the cord assembly meter.



## • ROOF TRIM

For work procedures for the cord assembly antenna and cord assembly roof, refer to "Roof Trim" of the "EXTERIOR/INTERIOR TRIM" section. [Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>REMOVAL.](#)

## ENTERTAINMENT & MONITORING > Antenna

### INSTALLATION

## 1. ROOF ANTENNA (XM/TELEMATICS)

### Caution:

**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".** [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Using new clips and bolts, install the antenna assembly roof and connect each connector.

#### Tightening torque:

4.5 ±1 N·m (0.5±0.1 kgf-m, 3.3±0.7 ft-lb)

2. Install the trim panel roof assembly. [Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>INSTALLATION.](#)
3. Connect the ground terminal to battery sensor. [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)

## 2. GPS ANTENNA

### Caution:


**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".** [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)



1. Install the GPS antenna assembly.
2. Install the duct ventilation RH. [Ref. to AIR CONDITIONER>Air Vent Duct>INSTALLATION > FRONT DUCT.](#)

3. Install the instrument panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>INSTALLATION.](#)
4. Connect the ground terminal to battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)

### 3. TELEMATICS SUB ANTENNA

**Caution:**

**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".**  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)



1. Install the telematics sub antenna assembly.
2. Install the instrument panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>INSTALLATION.](#)
3. Connect the ground terminal to battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)

### 4. FEEDER CORD

#### ● INSTRUMENT PANEL

**Caution:**



**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".**  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install the feeder assembly cord.
2. Install the instrument panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>INSTALLATION.](#)
3. Connect the ground terminal to battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)


#### ● STEERING BEAM

**Caution:**

**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".**  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install the cord assembly meter.
2. Install the instrument panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>INSTALLATION.](#)
3. Connect the ground terminal to battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)

#### ● ROOF TRIM

For work procedures for the cord assembly antenna and cord assembly roof, refer to "Roof Trim" of the "EXTERIOR/INTERIOR TRIM" section.  [Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>INSTALLATION.](#)

### REMOVAL

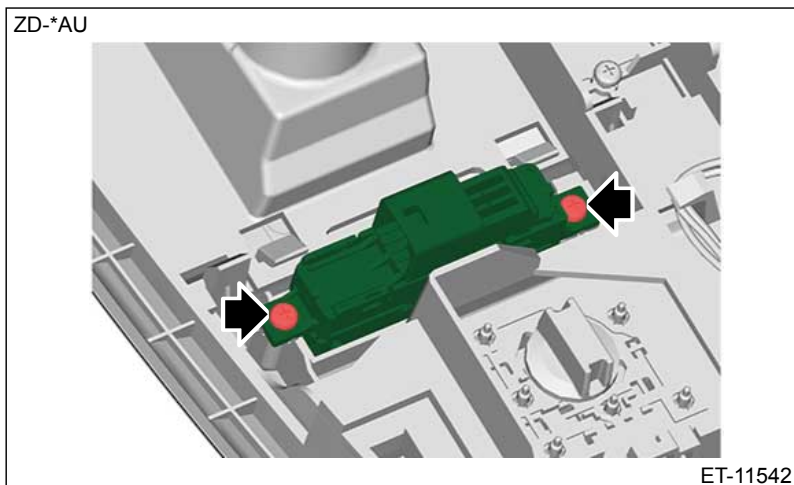
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#### 1. SATELLITE SWITCH

For the removal procedure of the satellite switch assembly, refer to "Steering Switch" of the "POWER ASSISTED SYSTEM (POWER STEERING)" section. [🔗 Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Steering Switch>REMOVAL > SATELLITE SWITCH ASSEMBLY.](#)

#### 2. TELEMATICS BUTTON

1. Disconnect the ground terminal from battery sensor. [🔗 Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)
2. Remove the light assembly map. (Models without EyeSight) [🔗 Ref. to LIGHTING SYSTEM>Spot Map Light>REMOVAL > MODELS WITHOUT EyeSight.](#)
3. Remove the cover assembly stereo camera. (Models with EyeSight) [🔗 Ref. to EyeSight>Stereo Camera>REMOVAL.](#)
4. Remove the screws and remove the telematics button.



### INSTALLATION

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#### 1. SATELLITE SWITCH

For the installation procedure of the satellite switch assembly, refer to "Steering Switch" of the "POWER ASSISTED SYSTEM (POWER STEERING)" section. [🔗 Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Steering Switch>INSTALLATION > SATELLITE SWITCH ASSEMBLY.](#)

#### 2. TELEMATICS BUTTON

1. Install the telematics button.
2. Install the light assembly map. (Models without EyeSight) [🔗 Ref. to LIGHTING SYSTEM>Spot Map Light>INSTALLATION > MODELS WITHOUT EyeSight.](#)
3. Install the cover assembly stereo camera. (Models with EyeSight) [🔗 Ref. to EyeSight>Stereo Camera>INSTALLATION.](#)

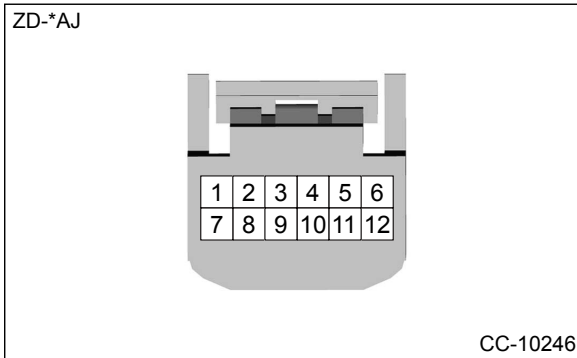
4. Connect the ground terminal to battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)

## ENTERTAINMENT & MONITORING > Switches and Harness

### INSPECTION

#### 1. STEERING SWITCH

1. Measure the resistance between connector terminals.



Terminal No.	Inspection conditions		Standard
6 — 5	SEEK (+) SEEK (–) VOL (+) VOL (–)	All OFF	Approx. 100 kΩ
	SEEK (+)	ON	Less than 1 Ω
	SEEK (–)	ON	Approx. 330 Ω
	VOL (+)	ON	Approx. 1,000 Ω
	VOL (–)	ON	Approx. 3,110 Ω
1 — 5	SOURCE OFF HOOK ON HOOK TALK	All OFF	Approx. 100 kΩ
	SOURCE	ON	Less than 1 Ω
	OFF HOOK	ON	Approx. 330 Ω
	ON HOOK	ON	Approx. 1,000 Ω
	TALK	ON	Approx. 3,110 Ω

2. Apply battery voltage between the connector terminals to check lighting condition of illumination inside the switch.

**Caution:**

**When applying battery voltage, do not mix up the positive (+) side and the negative (–) side.**

**Incorrect polarity connection may cause LED damage inside the switch.**

Terminal No.	Inspection conditions	Specification



8 (+) — 9 (—)

Apply battery voltage.

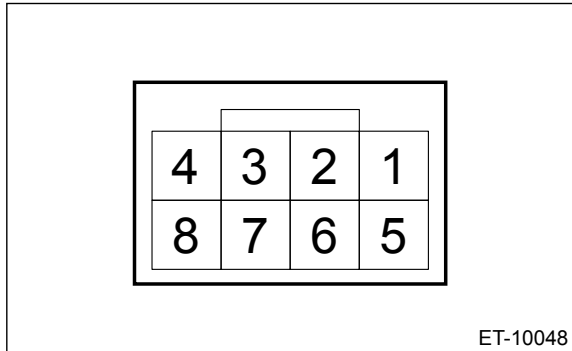
Light On

3. If it is found to be defective as a result of the inspection, replace the satellite switch assembly.

## 2. TELEMATICS BUTTON

1. Check the button.

(1) Measure the resistance between connector terminals.



- SOS button

Terminal No.	Inspection conditions	Standard
6 — 1	OFF	Approx. 1.6 kΩ
	ON	Less than 1 Ω

- i-button

Terminal No.	Inspection conditions	Standard
3 — 1	OFF	Approx. 1.6 kΩ
	ON	Less than 1 Ω

- (2) Apply battery voltage between the connector terminals to check lighting condition of illumination inside the switch.

**Caution:**

**When applying battery voltage, do not mix up the positive (+) side and the negative (—) side.**

**Incorrect polarity connection may cause LED damage inside the switch.**

Terminal No.	Inspection conditions	Specification
8 (+) — 2 (—)	Apply battery voltage.	Light On

2. Check the indicator.

- (1) Apply battery voltage between the connector terminals to check the lighting condition of the indicator.

**Caution:**

**When applying battery voltage, do not mix up the positive (+) side and the negative (—) side.**

**Incorrect polarity connection may cause LED damage inside the switch.**

Terminal No.	Inspection conditions	Specification
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4 (+) – 1 (–)	Apply battery voltage.	Illuminating in green
7 (+) – 1 (–)		Illuminating in red
4 (+) – 1 (–) and 8 (+) – 2 (–)	Apply battery voltage simultaneously.	Indicator turns on in dimmed condition at one level.
7 (+) – 1 (–) and 8 (+) – 2 (–)		

3. Replace the telematics button if it is found defective.

## ENTERTAINMENT & MONITORING > Microphone

### NOTE

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The microphone is integrated into the light assembly map or cover assembly stereo camera.  
For work procedures for the microphone, refer to the following sections.

- Light assembly map:  [Ref. to LIGHTING SYSTEM>Spot Map Light.](#)
- Cover assembly stereo camera:  [Ref. to EyeSight>Stereo Camera.](#)

## ENTERTAINMENT & MONITORING > Telematics System

### WIRING DIAGRAM

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For the wiring diagram, refer to "Telematics System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Telematics System>WIRING DIAGRAM.](#)

## ENTERTAINMENT & MONITORING > Telematics System


### INSPECTION

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#### 1. BASIC INSPECTION

For basic inspection, refer to "Basic Diagnostic Procedure" in "TELEMATICS SYSTEM (DIAGNOSTICS)".  [Ref. to TELEMATICS SYSTEM \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

#### 2. SYSTEM BLOCK DIAGRAM

For system block diagram, refer to "System Block Diagram" in "TELEMATICS SYSTEM (DIAGNOSTICS)".  [Ref. to TELEMATICS SYSTEM \(DIAGNOSTICS\)>General Description>SYSTEM BLOCK DIAGRAM.](#)

#### 3. MODULE I/O SIGNAL

For the specification (electrical component), refer to "Control Module I/O Signal" in "TELEMATICS SYSTEM (DIAGNOSTICS)".  [Ref. to TELEMATICS SYSTEM \(DIAGNOSTICS\)>Control Module I/O Signal>SPECIFICATION.](#)

## ENTERTAINMENT & MONITORING > Telematics System

### OPERATION

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#### 1. REGISTRATION (COMM CHECK)

##### Caution:

**Do not press and hold the i-button for more than two seconds during communication check, or settings will return to factory mode in poor radio wave environment. If the settings has returned to factory mode, perform the communication check again. To check the mode status, see "Subscription Status" in the current data display on Subaru Select Monitor.**

1. Replace the data communication module with a new part.
2. Check that the LED of the telematics button illuminates green.
3. Register the immobilizer. For detailed operation procedure, refer to "Type H" described in "REGISTRATION MANUAL FOR IMMOBILIZER".
4. Press and hold the i-button for 2 seconds or more.

##### Note:


**When the subscription is completed, the telematics system will automatically activate.**

## ENTERTAINMENT & MONITORING > Telematics System

### NOTE

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For operation procedures of components in the telematics system, refer to the following sections.





- Data communication module:  [Ref. to ENTERTAINMENT & MONITORING>Data Communication Module.](#)
- Antenna:  [Ref. to ENTERTAINMENT & MONITORING>Antenna.](#)
- Telematics button:  [Ref. to ENTERTAINMENT & MONITORING>Switches and Harness.](#)

## REMOVAL

### 1. DATA COMMUNICATION MODULE

**Caution:**

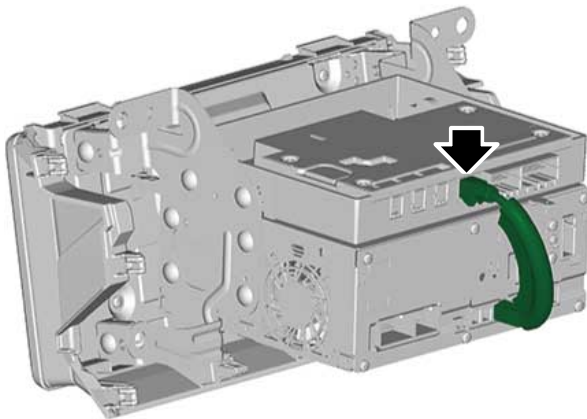
Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)
2. Remove the cover LWR driver INN.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL > INSIDE.](#)
3. Remove the cover assembly instrument panel side RH and the panel center UPR assembly.  [Ref. to AIR CONDITIONER>Air Vent Grille>REMOVAL > CENTER GRILLE.](#)
4. Remove the center information display assembly.  [Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>REMOVAL.](#)
5. Remove the data communication module.
  - (1) Disconnect the cable CCM connector.

**Note:**

Remove the cable CCM as necessary.

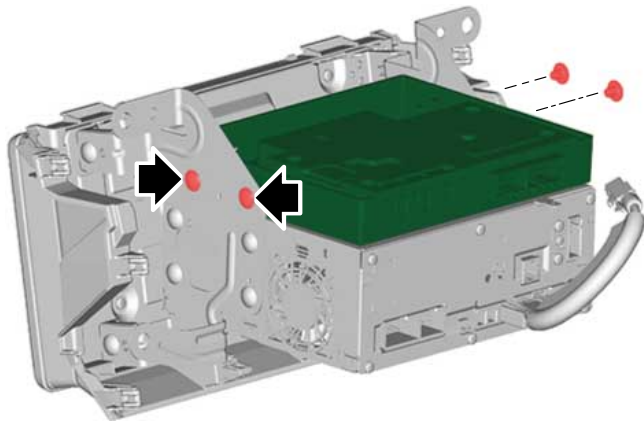
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- (2) Remove the screws and remove the data communication module.

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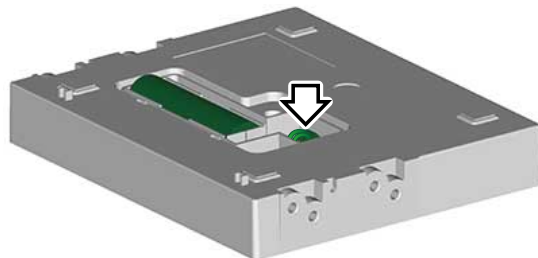
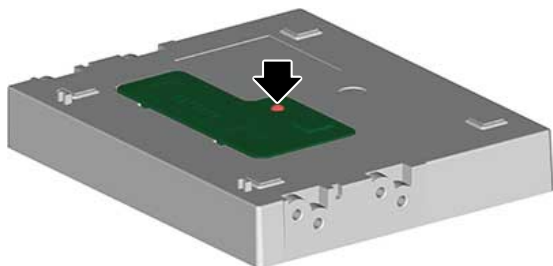
ET-11544

## 2. BACKUP BATTERY

### Caution:

**Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".**  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)
2. Remove the data communication module.  [Ref. to ENTERTAINMENT & MONITORING>Data Communication Module>REMOVAL > DATA COMMUNICATION MODULE.](#)
3. Remove the backup battery.
  - (1) Using TORX® T10, remove the cap screw, and then remove the battery cover.
  - (2) Disconnect the connector and remove the backup battery.



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## INSTALLATION

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### 1. DATA COMMUNICATION MODULE







**Caution:**

Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install the data communication module.


**Caution:**



Never install a data communication module from another vehicle. It may disable recognition of vehicle information and cause communication error.

- (1) Align the positioning pin of the data communication module with the positioning hole of the cockpit control module, and install the data communication module.
- (2) Connect the cable CCM connector.
2. Install the center information display assembly.  [Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>INSTALLATION.](#)
3. Install the panel center UPR assembly and cover assembly instrument panel side RH.  [Ref. to AIR CONDITIONER>Control Panel>INSTALLATION.](#)
4. Install the cover LWR driver INN.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION > INSIDE.](#)
5. Connect the ground terminal to battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)
6. Perform the registration if the data communication module is replaced with a new part.  [Ref. to ENTERTAINMENT & MONITORING>Telematics System>OPERATION.](#)
7. Check the LED illumination status of the telematics button.  [Ref. to TELEMATICS SYSTEM \(DIAGNOSTICS\)>Check List for Interview>CHECK > LED ILLUMINATION STATUS LIST.](#)

### 2. BACKUP BATTERY

**Caution:**

Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install the backup battery, and connect the connector.
2. Install the battery cover using TORX® T10.
3. Install the data communication module.  [Ref. to ENTERTAINMENT & MONITORING>Data Communication Module>INSTALLATION > DATA COMMUNICATION MODULE.](#)
4. Connect the ground terminal to battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)

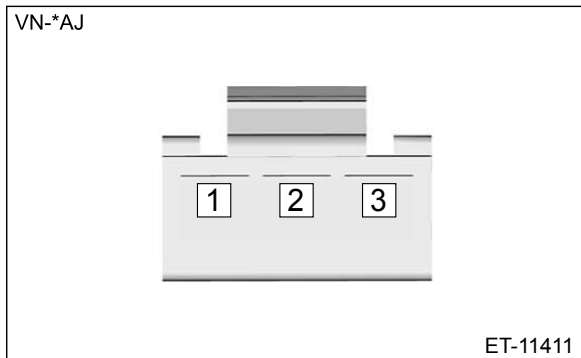
## ENTERTAINMENT & MONITORING > Data Communication Module

## INSPECTION

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### 1. BACKUP BATTERY

1. Measure the voltage between connector terminals.




Terminal No.	Standard
1 (+) — 3 (–)	2 V or more

2. Replace the backup battery if the inspection result is not within the standard value.






## ENTERTAINMENT & MONITORING > Camera

### WIRING DIAGRAM

For the wiring diagram, refer to "Rearview Camera System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Rearview Camera System>WIRING DIAGRAM.](#)

## ENTERTAINMENT & MONITORING > Camera

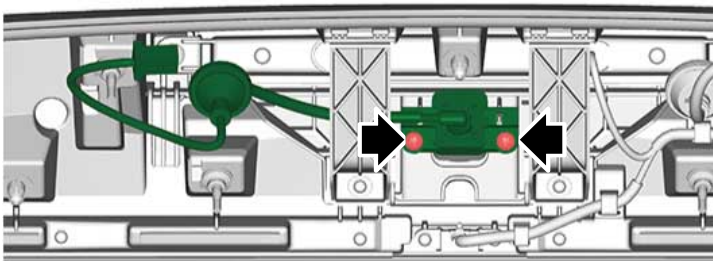
### REMOVAL

1. Disconnect the ground terminal from battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)
2. Remove the trim panel trunk lid.  [Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>REMOVAL.](#)
3. Remove the garnish assembly trunk.  [Ref. to EXTERIOR/INTERIOR TRIM>Trunk Garnish>REMOVAL.](#)
4. Remove the screws, and remove the rearview camera assembly.

#### Caution:

**Do not drop or apply any impact to the rearview camera assembly because it is a precision equipment.**

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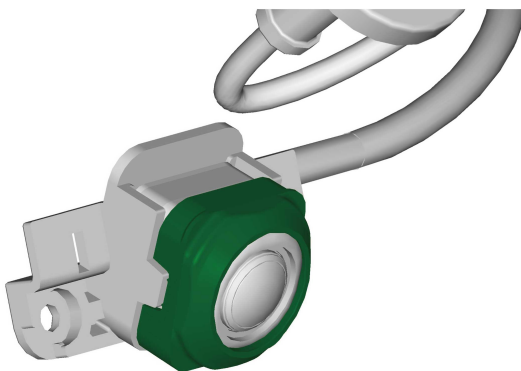
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5. Remove the cover rearview camera.

#### Note:

**Perform this procedure only when required.**





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## ENTERTAINMENT & MONITORING > Camera

### INSTALLATION

1. Install the cover rearview camera.
2. Install the rearview camera assembly.
3. Install the garnish assembly trunk.  [Ref. to EXTERIOR/INTERIOR TRIM>Trunk Garnish>INSTALLATION.](#)
4. Install the trim panel trunk lid.  [Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>INSTALLATION.](#)
5. Connect the ground terminal to battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)
6. Confirm the display and the guide line position, and adjust them as necessary.  [Ref. to ENTERTAINMENT & MONITORING>Camera>INSPECTION.](#)

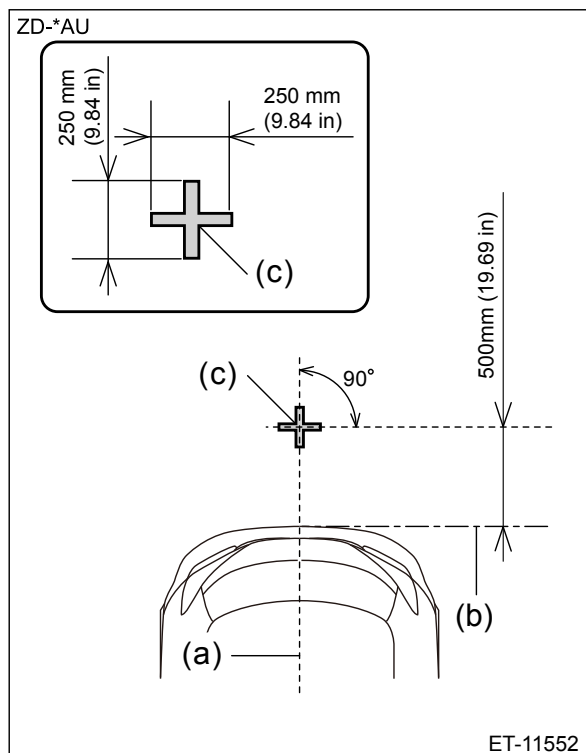
## ENTERTAINMENT & MONITORING > Camera

### INSPECTION

1. Park the vehicle at the level place where there are enough area at the rear of the vehicle.
2. Attach the tape as the target point for standard at the floor rearward of the vehicle as shown in the figure below.

#### Note:



**Standard tape width is about 30 – 50 mm (1.18 – 1.97 in) and brilliant color shall be used.**




- (a) Vehicle body center line
- (b) Rear edge of bumper
- (c) Target point

**3.** Confirm the following before checking the corresponding items.

(1) The rearview image is not displayed. (Everything except for the rearview image is displayed properly.)


1. Check the reverse signal with the {Vehicle Signal} items in the Dealership Mode.  [Ref. to COCKPIT CONTROL \(DIAGNOSTICS\)>Dealership Mode>OPERATION.](#)
2. Check the rearview camera assembly connection status with the {Connection} items in the Dealership Mode.  [Ref. to COCKPIT CONTROL \(DIAGNOSTICS\)>Dealership Mode>OPERATION.](#)

(2) The guide line is not displayed, or the guide line position is not aligned.

1. Check the camera guide line ON/OFF setting.  [Ref. to COCKPIT CONTROL \(DIAGNOSTICS\)>Customize.](#)
2. The rearview camera or its installation location on the vehicle may be deformed. Check the rearview camera assembly and its installation location on the vehicle, and repair or replace if necessary.



## ENTERTAINMENT & MONITORING > Accessory Power Supply Socket

### WIRING DIAGRAM

For the wiring diagram, refer to "Front Accessory Power Supply Socket System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Front Accessory Power Supply Socket System>WIRING DIAGRAM.](#)

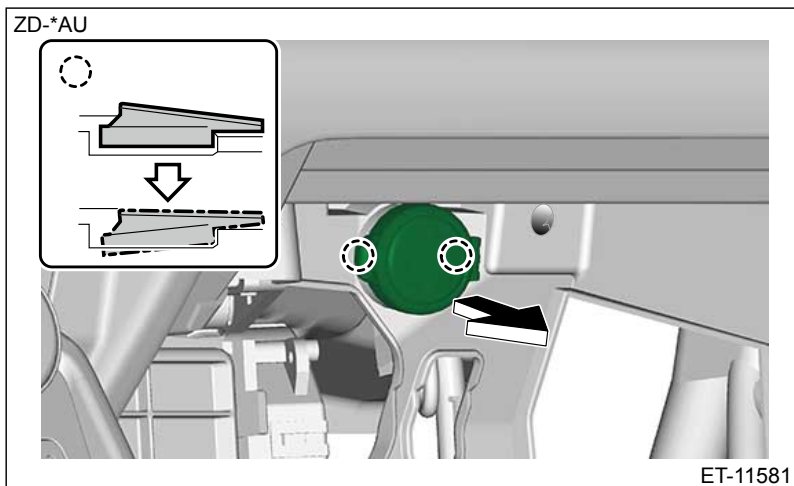
## ENTERTAINMENT & MONITORING > Accessory Power Supply Socket

### REMOVAL

1. Disconnect the ground terminal from battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)
2. Remove the pocket COMPL.  [Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL > GLOVE BOX LID.](#)
3. Remove the socket assembly.  
(1) Push the claw down from behind as you release it, and pull out the socket assembly from the panel instrument passenger.

#### Caution:



**When using a tool, apply protective tape or a cloth and be careful not to cause damage.**



- (2) Detach the connector, and remove the socket assembly.



## ENTERTAINMENT & MONITORING > Accessory Power Supply Socket

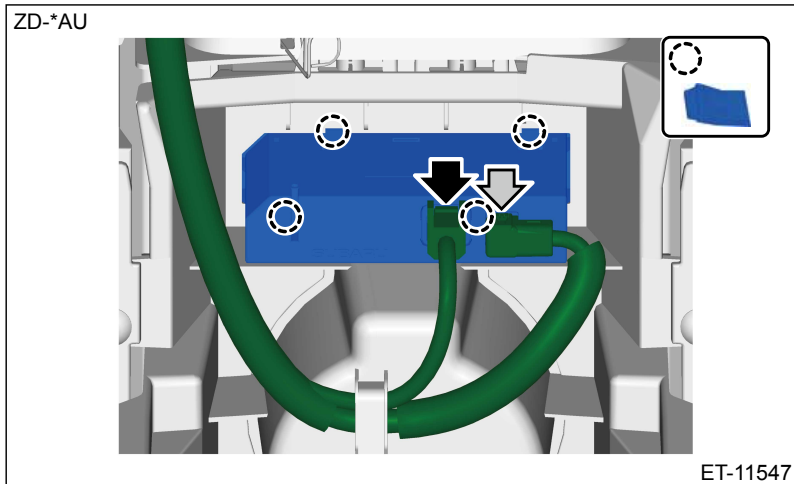
### INSTALLATION

1. Connect the connector to the socket assembly.
2. Insert the socket assembly protrusion into the groove of the panel instrument passenger, and then install the socket assembly.
3. Install the pocket COMPL.  [Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>INSTALLATION > GLOVE BOX LID.](#)
4. Connect the ground terminal to battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)

## ENTERTAINMENT & MONITORING > External Connection Terminal



### REMOVAL

1. Disconnect the ground terminal from battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)
2. Remove the boot assembly parking brake and the console box assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.](#)
3. Remove the AUX unit assembly.
  - (1) Disconnect the connector and cord assembly AUX.
  - (2) Push the claw in as you release it, and then remove the AUX unit assembly from the console box assembly.



## ENTERTAINMENT & MONITORING > External Connection Terminal


### INSTALLATION

1. Install the AUX unit assembly, and then connect the cord assembly AUX and connector.
2. Install the console box assembly and the boot assembly parking brake.  [Ref. to EXTERIOR/INTERIOR TRIM>Console Box>INSTALLATION.](#)
3. Connect the ground terminal to battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)

## ENTERTAINMENT & MONITORING > Diagnostics with Phenomenon

### INSPECTION

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For the diagnostics with phenomenon, refer to “Diagnostics with Phenomenon” in the “COCKPIT CONTROL (DIAGNOSTICS)” section.  [Ref. to COCKPIT CONTROL \(DIAGNOSTICS\)>Diagnostics with Phenomenon.](#)

## ENTERTAINMENT & MONITORING > Dealership Mode

### NOTE

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For the Dealership Mode, refer to “Dealership Mode” of the “COCKPIT CONTROL (DIAGNOSTICS)” section.



[Ref. to COCKPIT CONTROL \(DIAGNOSTICS\)>Dealership Mode.](#)